



Water-Data Report 2008

01410150 EAST BRANCH BASS RIVER NEAR NEW GRETNA, NJ

MULLICA RIVER BASIN

LOCATION.--Lat 39°37'23", long 74°26'29" referenced to North American Datum of 1983, Bass River Township, Burlington County, NJ, Hydrologic Unit 02040301, on left bank upstream from bridge on Stage Road, 0.7 mi west of Lake Absegami, 2.2 mi north of New Gretna, and 5.3 mi upstream from mouth.

DRAINAGE AREA.--8.11 mi².

SURFACE-WATER RECORDS

PERIOD OF RECORD.--Occasional low-flow measurements, water years 1969 to 1974. January 1978 to current year.

REVISED RECORDS.--WDR NJ-81-1:1978-80(P). WDR NJ-92-1:1978, 1979, 1989, 1991(P).

GAGE.--Water-stage recorder. Datum of gage is 1.10 ft above NGVD of 1929.

REMARKS.--Records fair, except for estimated daily discharges, which are poor. Occasional regulation by Lake Absegami. Satellite gage-height telemetry at station. Several measurements of water temperature were made during the year.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 65 ft³/s and (or) maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Mar 8	1615	*42	*4.67

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DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2007 TO SEPTEMBER 2008
DAILY MEAN VALUES
[*e*, estimated]

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	8.8	10	9.7	23	21	18	17	15	14	10	8.8	8.6
2	8.8	10	9.8	20	31	18	18	15	14	9.7	8.8	8.5
3	8.8	10	12	19	27	18	17	15	14	9.6	8.8	8.5
4	8.8	10	12	18	21	18	21	15	15	9.4	8.7	8.5
5	8.8	10	11	18	20	20	22	15	15	9.6	8.7	8.5
6	8.8	10	10	18	19	20	20	15	14	9.8	8.7	14
7	8.8	10	10	18	19	19	20	15	14	11	8.6	22
8	8.7	10	10	18	18	38	18	15	13	10	8.6	15
9	8.6	10	10	18	18	38	18	17	13	9.5	8.6	10
10	8.9	10	10	18	18	29	18	19	12	9.2	9.2	11
11	8.9	10	10	18	18	24	18	17	12	9.1	12	9.9
12	9.0	10	10	18	17	22	17	e17	12	8.9	11	9.4
13	8.8	10	10	18	25	22	18	e20	12	8.8	9.4	11
14	8.7	10	10	21	36	21	17	19	12	8.7	9.2	10
15	8.7	10	10	20	29	21	17	16	12	8.6	8.9	9.4
16	8.6	10	15	18	23	21	16	18	12	8.5	8.9	9.2
17	8.6	9.9	17	18	21	20	16	20	11	8.4	8.8	9.2
18	8.6	9.9	14	23	21	19	16	18	11	8.4	8.8	9.2
19	8.8	10	13	22	e21	20	16	17	11	8.4	8.8	9.2
20	9.7	10	12	19	e18	21	16	17	11	8.4	8.7	9.1
21	9.1	10	12	18	19	20	16	18	11	8.4	8.7	8.9
22	8.7	9.9	12	18	20	19	16	17	11	8.4	8.7	8.9
23	8.6	9.8	14	18	21	18	15	17	11	8.4	8.6	8.9
24	8.8	9.8	18	18	20	18	15	16	11	9.6	8.6	8.8
25	10	9.8	16	17	20	18	15	16	10	9.7	8.6	8.9
26	11	10	14	17	19	18	15	15	10	8.8	8.6	10
27	12	10	14	17	20	18	15	15	10	9.2	8.6	10
28	12	10	13	17	19	18	16	16	10	11	8.6	9.6
29	11	9.8	20	17	18	17	17	15	10	9.8	8.6	9.8
30	11	9.8	25	17	---	17	16	14	10	9.0	8.6	9.6
31	10	---	25	17	---	17	---	14	---	8.8	8.6	---
Total	288.4	298.7	408.5	574	617	645	512	508	358	285.1	276.8	303.6
Mean	9.30	9.96	13.2	18.5	21.3	20.8	17.1	16.4	11.9	9.20	8.93	10.1
Max	12	10	25	23	36	38	22	20	15	11	12	22
Min	8.6	9.8	9.7	17	17	17	15	14	10	8.4	8.6	8.5
Cfsm	1.15	1.23	1.62	2.28	2.62	2.57	2.10	2.02	1.47	1.13	1.10	1.25
In.	1.32	1.37	1.87	2.63	2.83	2.96	2.35	2.33	1.64	1.31	1.27	1.39

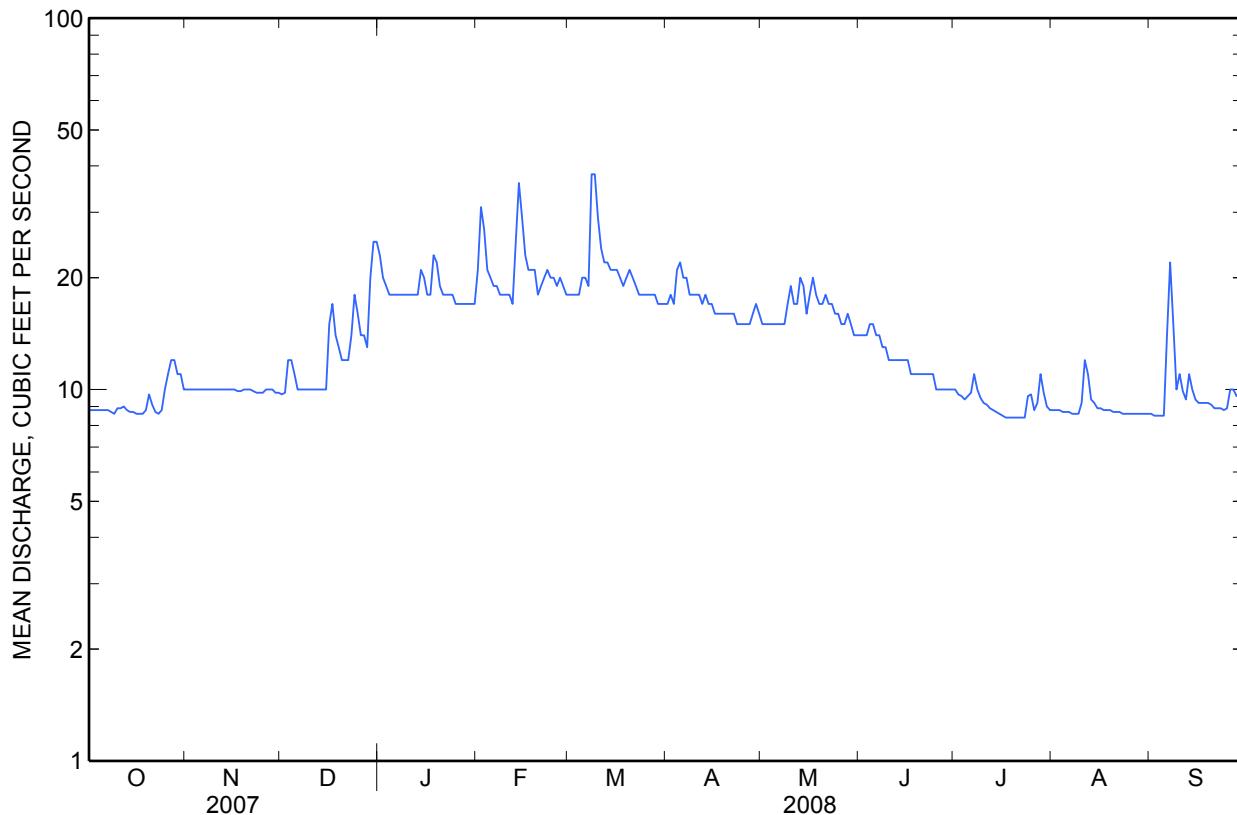
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1978 - 2008, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	12.7	14.4	15.9	18.6	18.4	20.6	20.8	18.4	15.5	13.5	14.5	12.7
Max	24.2	27.5	28.3	35.0	34.3	40.8	38.6	41.5	35.2	25.8	43.7	23.2
(WY)	(1990)	(2007)	(1997)	(1978)	(1998)	(1998)	(1984)	(1998)	(1998)	(1978)	(1997)	(2000)
Min	8.13	8.75	9.78	9.28	9.19	10.4	9.06	8.95	8.11	7.80	6.54	6.77
(WY)	(1983)	(1982)	(1986)	(1981)	(2002)	(2002)	(1985)	(1985)	(1986)	(1985)	(1995)	(1995)

01410150 EAST BRANCH BASS RIVER NEAR NEW GRETNA, NJ—Continued**SUMMARY STATISTICS**

	Calendar Year 2007	Water Year 2008	Water Years 1978 - 2008	
Annual total	6,006.7	5,075.1		
Annual mean	16.5	13.9	16.1	
Highest annual mean			25.3	1998
Lowest annual mean			9.60	1985
Highest daily mean	62	Apr 16	38	Mar 8 Aug 21, 1997
Lowest daily mean	8.6	Oct 9	8.4	Jul 17-23 Sep 15, 1995
Annual seven-day minimum	8.7	Oct 13	8.4	Jul 17 Sep 10, 1995
Maximum peak flow			42	Mar 8 a1,130 Aug 21, 1997
Maximum peak stage			4.67	Mar 8 7.28 Aug 21, 1997
Instantaneous low flow			8.4	Jul 17-24 4.7 Sep 15, 1995
Annual runoff (cfsm)	2.03	1.71		1.99
Annual runoff (inches)	27.55	23.28		27.00
10 percent exceeds	25	20		25
50 percent exceeds	14	12		14
90 percent exceeds	9.1	8.7		9.0

^a From rating curve extended above 200 ft³/s extended by logarithmic extrapolation.



01410150 EAST BRANCH BASS RIVER NEAR NEW GRETNA, NJ—Continued**WATER-QUALITY RECORDS**

PERIOD OF RECORD.--Water years 1976 to current year.

REMARKS.--Cooperative Network Site Descriptor: Undeveloped Land Use Indicator and Trace Element Assessment (303d) special study site, NJ Department of Environmental Protection Management Area 14.

COOPERATION.--Physical measurements and samples for laboratory analyses were provided by personnel of the NJ Department of Environmental Protection. Samples on Jan 15, Apr 4, and Jun 26 were for the Trace Element Assessment (303d). Determinations of dissolved ammonia, dissolved orthophosphate, and suspended residue were performed by the NJ Department of Health and Senior Services, Environmental and Chemical Laboratory.

**WATER-QUALITY DATA
WATER YEAR OCTOBER 2007 TO SEPTEMBER 2008**

Part 1 of 4

[QC, quality control sample. Remark codes: <, less than; E, estimated.]

Date	Time	Sample medium and type	Instan- taneous dis- charge, ft ³ /s (00061)	Turbdty white light, det ang 90+/-30 corctd	UV absorb- ance, 254 nm, wat flt units	UV absorb- ance, 280 nm, wat flt units	Baro- metric pres- sure, mm Hg (00025)	Dis- solved oxygen, mg/L (00300)	Dis- solved oxygen, percent of sat- uration (00301)
Nov									
19...	1000	Surface water, regular	10	.3	.089	.070	772	9.4	82
Jan									
15...	0800	<i>QC - Artificial, field blank</i>	--	--	--	--	--	--	--
15...	0830	Surface water, regular	20	.5	--	--	760	9.8	78
Feb									
13...	1000	Surface water, regular	21	.8	.175	.137	754	10.8	87
Apr									
04...	0830	<i>QC - Artificial, field blank</i>	--	--	--	--	--	--	--
04...	0900	Surface water, regular	21	.9	--	--	761	8.8	78
May									
07...	0930	Surface water, regular	15	.7	.118	.093	762	8.6	79
Jun									
26...	0930	Surface water, regular	10	.6	--	--	762	6.3	65
Aug									
27...	0930	Surface water, regular	8.6	.3	.088	.070	764	6.9	68

01410150 EAST BRANCH BASS RIVER NEAR NEW GRETNA, NJ—Continued

WATER-QUALITY DATA
WATER YEAR OCTOBER 2007 TO SEPTEMBER 2008

Part 2 of 4

[QC, quality control sample. Remark codes: <, less than; E, estimated.]

Date	Specif-										ANC,		
	pH, water, unfiltrd field, std units (00400)	conduc- tance, wat unf μS/cm (00095)	Temper- ature, air, deg C (25 degC)	Temper- ature, water, deg C (00020)	Hard- ness, water, mg/L as CaCO3 (00900)	Calcium water, filtrd, mg/L (00900)	Magnes- ium, water, filtrd, mg/L (00915)	Potas- sium, water, filtrd, mg/L (00935)	Sodium, water, filtrd, mg/L (00930)	end pt, lab, mg/L as CaCO3 (90410)	Chlor- ide, water, filtrd, mg/L (00940)	Fluor- ide, water, filtrd, mg/L (00950)	Silica, water, filtrd, mg/L as SiO2 (00955)
Nov 19...	5.2	39	9.5	9.0	3	.44	.527	.61	2.95	<1.7	5.34	<.12	9.3
Jan 15...	--	--	--	--	--	--	--	--	--	--	--	--	--
15...	4.3	54	-1.0	5.6	--	--	--	--	--	--	--	--	--
Feb 13...	4.6	52	12.0	6.1	4	.52	.603	.60	4.10	--	7.06	<.12	6.7
Apr 04...	--	--	--	--	--	--	--	--	--	--	--	--	--
04...	4.4	53	12.5	9.5	--	--	--	--	--	--	--	--	--
May 07...	4.7	44	19.5	12.0	3	.38	.436	.43	3.11	<1.7	5.60	<.12	6.8
Jun 26...	4.5	37	24.0	16.5	--	--	--	--	--	--	--	--	--
Aug 27...	4.7	36	18.5	14.5	3	.35	.415	.52	2.94	<1.7	5.11	<.12	9.6

01410150 EAST BRANCH BASS RIVER NEAR NEW GRETNA, NJ—Continued

WATER-QUALITY DATA
WATER YEAR OCTOBER 2007 TO SEPTEMBER 2008

Part 3 of 4

[QC, quality control sample. Remark codes: <, less than; E, estimated.]

Date	Sulfate water, filtrd, mg/L (00945)	Residue on evap. at 180degC 180degC wat flt	Residue total non-filterable, mg/L (00530)	Ammonia + org-N, water, filtrd, mg/L as N (00623)	Ammonia water, filtrd, mg/L as N (00608)	Nitrate + nitrite water, filtrd, mg/L as N (00631)	Particulate nitrogen, susp, water, filtrd, mg/L (49570)	Total nitrogen, water, filtrd, mg/L (00602)	Total nitrogen, water, unfltrd, mg/L (00600)	Orthophosphate, water, filtrd, mg/L as P (00671)	Phosphorus, water, filtrd, mg/L as P (00666)	Phosphorus, water, unfltrd, mg/L as P (00665)	Total carbon, sedimnt, mg/L (00694)
Nov 19...	6.90	29	1	E.11	.028	<.04	<.04	--	--	<.010	<.008	<.008	E.1
Jan 15...	--	--	--	--	--	--	--	--	--	--	--	--	--
15...	--	--	--	--	--	--	--	--	--	--	--	--	--
Feb 13...	6.36	40	2	.17	.022	E.03	E.03	E.19	E.23	.034	<.008	<.008	.4
Apr 04...	--	--	--	--	--	--	--	--	--	--	--	--	--
04...	--	--	--	--	--	--	--	--	--	--	--	--	--
May 07...	4.44	31	1	E.11	.012	<.04	E.03	--	--	E.003	<.008	<.008	.4
Jun 26...	--	--	--	--	--	--	--	--	--	--	--	--	--
Aug 27...	3.90	35	2	.40	.018	E.03	<.04	E.43	--	<.010	<.008	<.008	.1

01410150 EAST BRANCH BASS RIVER NEAR NEW GRETNA, NJ—Continued

WATER-QUALITY DATA
WATER YEAR OCTOBER 2007 TO SEPTEMBER 2008

Part 4 of 4

[QC, quality control sample. Remark codes: <, less than; E, estimated.]

Date	Inor- ganic carbon, suspd sedimnt total, mg/L (00688)	Organic carbon, suspd sedimnt total, mg/L (00689)	Organic water, filtrd, filtrd, mg/L (00681)	Boron, water, filtrd, μg/L (01020)	Mercury water, unfltrd water, filtrd, μg/L (71890)	Mercury recover- able, μg/L (71900)
Nov						
19...	<.04	<.1	1.9	7.8	--	--
Jan						
15...	--	--	--	--	<.010	--
15...	--	--	--	--	<.010	<.010
Feb						
13...	<.04	.4	4.2	9.1	--	--
Apr						
04...	--	--	--	--	<.010	--
04...	--	--	--	--	<.010	<.010
May						
07...	<.04	.4	2.4	9.3	--	--
Jun						
26...	--	--	--	--	<.010	<.010
Aug						
27...	<.04	.1	1.7	8.1	--	--